### STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION





Northern New England Telephone Operations LLC dba FairPoint Communications Penobscot County Bangor, Maine A-796-71-I-R Departmental
Findings of Fact and Order
Air Emission License
Renewal

### FINDINGS OF FACT

After review of the air emission license renewal application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes Annotated (M.R.S.A.), §344 and §590, the Maine Department of Environmental Protection (Department) finds the following facts:

### I. REGISTRATION

### A. Introduction

Northern New England Telephone Operations LLC, doing business as FairPoint Communications (FairPoint), has applied to renew their Air Emission License permitting the operation of emission sources associated with their Central Office Switching Center.

The equipment addressed in this license is located at 59 Park Street, Bangor, Maine.

### B. Emission Equipment

The following equipment is addressed in this air emission license:

### Boilers

Equipment	Maximum Capacity (MMBTU/hr)	Maximum Firing Rate (scf/hr)	Fuel Type, % sulfur	Manufacture/ Installation Date	Stack #
Boiler #1	3.4	3,229	Natural Gas, negligible	1998/2009	2
Boiler #2	3.4	3,229	Natural Gas, negligible	1998/2009	2

### **Emergency Generator**

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Output Capacity (kW)	Firing Rate (gal/hour)	Fuel Type	Manufacture/ Installation Date
Generator #1	7.7	750	56.6	Distillate	1994/1994

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### C. Definitions

For the purposes of this license, distillate fuel means the following:

- 1. Fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials (ASTM) in ASTM D396;
- 2. Diesel fuel oil numbers 1 or 2, as defined in ASTM D975;
- 3. Kerosene, as defined in ASTM D3699;
- 4. Biodiesel, as defined in ASTM D6751; or
- 5. Biodiesel blends, as defined in ASTM D7467.

### D. Application Classification

The application for FairPoint does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of currently licensed emission units only and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (CMR) 115 (as amended). FairPoint is licensed below the major source thresholds for criteria pollutants and is considered a synthetic minor source. FairPoint is also licensed below the major source thresholds for hazardous air pollutants (HAP) and is considered an area source of HAP.

### II. BEST PRACTICAL TREATMENT (BPT)

### A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in 06-096 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

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### B. Boilers #1 and #2

FairPoint operates two boilers that provide heat to their telecommunications switching facility. Boilers #1 and #2 are each rated at 3.4 MMBtu/hour and have maximum firing rates of 3,229 standard cubic feet per hour (scf/hr) of natural gas. Both boilers were installed in 2009 and exhaust through a combined stack, designated Stack #2. Emissions from Boilers #1 and #2 will be minimal due to their relatively small size and the type of fuel burned. Due to the size of the boilers and the fact that they are firing natural gas, no additional control measures are required.

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### 1. BPT Findings

The BPT emission limits for Boilers #1 and #2 were based on the following:

$PM/PM_{10}$	0.05 lb/MMBtu based on 06-096 CMR 115, BPT
$SO_2$	0.6 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98
NOx	100 lb/MMscf based on AP-42, Table 1.4-1, dated 7/98
CO	84 lb/MMscf based on AP-42, Table 1.4-1, dated 7/98
VOC	5.5 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98
Opacity	06-096 CMR 101

The BPT emission limits for Boilers #1 and #2 are the following:

Equipment	Pollutant	lb/MMBtu
Boilers #1 & #2	PM	0.05

Equipment	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	0.2	0.2	0.1	0.4	0.3	0.1
Boiler #2	0.2	0.2	0.1	0.4	0.3	0.1

Visible emissions from Stack #2, servicing Boilers #1 and #2, shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period.

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### 2. 40 CFR Part 60, Subpart Dc

Due to their sizes, Boilers #1 and #2 are not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, for units greater than 10 MMBtu/hr manufactured after June 9, 1989.

### 3. 40 CFR Part 63, Subpart JJJJJJ

Boilers #1 and #2 are gas-fired boilers, as defined in 40 CFR §63.11237, and are located at or are part of an area source of HAP, as defined in §63.2. As such, Boilers #1 and #2 are not subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 CFR Part 63, Subpart JJJJJJ. [40 CFR § 63.11195 (e)]

### C. Emergency Generator #1

FairPoint operates one emergency generator, designated Generator #1, which is rated at 7.7 MMBtu/hour (750 kW output) and fires distillate fuel, with a sulfur content not to exceed 0.0015% by weight, at a rate of 56.6 gallons/hour The generator is a stationary unit which was manufactured and installed in 1994.

### 1. BPT Findings

The BPT emission limits for Generator #1 are based on the following:

$PM/PM_{10}$	0.12 lb/MMBtu, based on 06-096 CMR 103, BPT
$SO_2$	0.0015 lb/MMBtu, firing 0.0015%S (15ppm) distillate
$NO_X$	3.20 lb/MMBtu from AP-42, Table 3.4-1, dated 10/96
CO	0.85 lb/MMBtu from AP-42, Table 3.4-1, dated 10/96
VOC	0.09 lb/MMBtu from AP-42, Table 3.4-1, dated 10/96
Opacity	06-096 CMR 101

The BPT emission limits for Generator #1 are the following:

Equipment	Pollutant	lb/MMBtu
Generator #1	PM	0.12

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Equipment	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
Generator #1	0.9	0.9	0.1	24.6	6.6	0.7

Visible emissions from Generator #1 shall not exceed 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period.

### 2. 40 CFR Part 60, Subpart IIII

Generator #1 was ordered before July 11, 2005 and manufactured before April 1, 2006. Therefore, Generator #1 is not subject to New Source Performance Standards 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

### 3. 40 CFR Part 63, Subpart ZZZZ

The federal regulation 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines is not applicable to Generator #1. Generator #1 is considered an existing, emergency stationary reciprocating internal combustion engine at an area HAP source. However, Generator #1 is considered exempt from the requirements of Subpart ZZZZ since it is categorized as a residential, commercial, or institutional emergency engine and it does not operate or is not contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii).

Operation of Generator #1 such that it exceeds 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or for supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in 40 CFR §63.6640(f)(4)(ii), would cause the engine to be subject to 40 CFR Part 63, Subpart ZZZZ, and require compliance with all applicable requirements.

Generator #1 shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. There is no limit on the number of hours of emergency operation. Generator #1 shall be equipped with a non-resettable hour-meter to record operating time. To demonstrate compliance with the operating hours limit, FairPoint shall keep records of the total hours of operation, the reason for operation and the hours of emergency operation for Generator #1.

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Generator #1 is only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Generator #1 is not to be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity.

### D. Annual Emissions

### 1. Total Annual Emissions

FairPoint shall be restricted to the following annual emissions, on a calendar-year basis. The tons per year limits were calculated based on Boilers #1 and #2 operating at maximum capacity for 8,760 hours per year and Generator #1 operating 100 hours per year:

### Total Licensed Annual Emissions for the Facility Tons/year (used to calculate the annual license fee)

Equipment	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Boilers #1 and #2	1.8	1.8	0.9	3.5	2.6	0.8
Generator #1	0.1	0.1	0.1	1.2	0.3	0.1
Total TPY	1.9	1.9	1.0	4.7	2.9	0.9

### 2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans*, 40 CFR Part 52, Subpart A, §52.21, *Prevention of Significant Deterioration of Air Quality* rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), are the aggregate group of the following gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO<sub>2</sub>e).

The quantity of CO<sub>2</sub>e emissions from this facility is less than 100,000 tons per year, based on the following:

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- the types of fuel being fired;
- the facility's fuel use limit;
- worst case emission factors from the following sources: U.S. EPA's AP-42, the Intergovernmental Panel on Climate Change (IPCC), and 40 CFR Part 98, *Mandatory Greenhouse Gas Reporting*; and
- global warming potentials contained in 40 CFR Part 98.

No additional licensing actions to address GHG emissions are required at this time.

### III. AMBIENT AIR QUALITY ANALYSIS

The level of ambient air quality impact modeling required for a minor source shall be determined by the Department on a case-by case basis. In accordance with 06-096 CMR 115, an ambient air quality impact analysis is not required for a minor source if the total licensed annual emissions of any pollutant released do not exceed the following levels and there are no extenuating circumstances:

Pollutant	Tons/Year
PM	25
$PM_{10}$	25
$SO_2$	. 50
NO <sub>x</sub>	100
CO	250

The total licensed annual emissions for the facility are below the emission levels contained in the table above and there are no extenuating circumstances; therefore, an ambient air quality impact analysis is not required as part of this license.

#### **ORDER**

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-796-71-I-R, subject to the following conditions.

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<u>Severability</u>. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

#### STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S.A. §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353-A. [06-096 CMR 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]

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- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.

  [06-096 CMR 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
  - A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
    - 1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
    - 2. pursuant to any other requirement of this license to perform stack testing.
  - B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
  - C. submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 115]

- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
  - A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

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- B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
- C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 CMR 115]

- (13)Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]
- (14)The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]
- Upon written request from the Department, the licensee shall establish and maintain such (15)records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

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### **SPECIFIC CONDITIONS**

### (16) **Boilers #1 and #2**

### A. Fuel

- 1. Boilers #1 and #2 are each licensed to fire natural gas. [06-096 CMR 115, BPT]
- B. Emissions from Boilers #1 and #2 shall not exceed the following [06-096 CMR 115, BPT]:

Equipment	Pollutant	lb/MMBtu
Boilers #1 & #2	PM	0.05

Equipment	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	0.2	0.2	0.1	0.4	0.3	0.1
Boiler #2	0.2	0.2	0.1	0.4	0.3	0.1

C. Visible emissions from Stack #2 shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period. [06-096 CMR 101(2)(B)(1)(c)]

### (17) **Generator #1**

- A. Generator #1 shall fire distillate fuel with a sulfur content not to exceed 0.0015% by weight. Compliance shall be based on fuel records from the supplier showing the quantity of fuel delivered and the sulfur content of the fuel. [06-096 CMR 115, BPT]
- B. Generator #1 is limited to 100 hours per year of non-emergency operation, on a calendar-year basis. Compliance shall be demonstrated by records of all generator use, with the records specifying both non-emergency and emergency hours of operation. [06-096 CMR 115, BPT]
- C. Emissions from Generator #1 shall not exceed the following:

Equipment	Pollutant	lb/MMBtu
Generator #1	PM	0.12

Equipment	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
Generator #1	0.9	0.9	0.1	24.6	6.6	0.7

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- D. Visible emissions from Generator #1 shall not exceed 20% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period. [06-096 CMR 101 (2)(B)(d)]
- (18) FairPoint shall notify the Department within 48 hours and submit a report to the Department on a <u>quarterly basis</u> if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 26 DAY OF DEPARTMENT OF ENVIRONMENTAL PROTECTION

July

, 2016

BY: More Allen Kalvert Corne for PAUL MERCER, COMMISSIONER

The term of this license shall be ten (10) years from the signature date above.

[Note: If a complete renewal application, as determined by the Department, is submitted prior to expiration of this license, then pursuant to Title 5 M.R.S.A. §10002, all terms and conditions of the license shall remain in effect until the Department takes final action on the renewal of the license.]

#### PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: May 12, 2016

Date of application acceptance: May 23, 2016

Date filed with the Board of Environmental Protection:

This Order prepared by Kevin J Ostrowski, Bureau of Air Quality.

Filed

JUL 2 9 2016

State of Maine Board of Environmental Protection